CLAIMS

What is claimed is:

1. A method of generating characters on a display, comprising the steps of:

assigning at least one character to one of a plurality of predetermined values that correspond to varying levels of pressure;

receiving an applied pressure; and

in response to the applied pressure, selecting the character, wherein the character that is selected is assigned to the predetermined value that corresponds to the applied pressure.

2. The method according to claim 1, wherein the character is part of a set of characters.

3. The method according to claim 1, further comprising the step of assigning to at least one key the predetermined values that correspond to varying levels of pressure.

4. The method according to claim 1, further comprising the step of displaying the selected character.

5. The method according to claim 1, wherein the predetermined values are different stored values of contact impedance, wherein the applied pressure causes a contact impedance to be generated and said selecting the character step further comprises the steps of:

measuring the generated contact impedance; and

comparing the generated contact impedance with the stored values of contact impedance to determine to which predetermined value the applied pressure corresponds.

6. The method according to claim 5, wherein the generated contact impedance is inversely proportional to the applied pressure such that the generated contact impedance increases as the applied pressure decreases and the generated contact impedance decreases as the applied pressure increases.

7. The method according to claim 5, wherein said measuring the generated contact impedance step comprises the step of generating a pressure voltage in response to the applied pressure.

8. The method according to claim 2, wherein the set of characters is displayed on at least one key of a keypad having a plurality of keys, wherein the key displaying the set of characters selectively receives the applied pressure.

9. The method according to claim 8, further comprising the step of measuring an X-position and a Y-position to determine which of the plurality of keys receives the applied pressure.

10. The method according to claim 9, wherein said measuring an X-position and a Y-position step comprises the step of determining a value of at least one X-position impedance and at least one Y-position impedance.

11. The method according to claim 10, wherein said determining a value of at least one X-position and at least one Y-position impedance comprises the step of generating an X-position voltage and a Y-position voltage, wherein the X-position voltage is used to determine the value of the X-position impedance and the Y-position voltage is used to determine the value of the Y-position impedance.

12. The method according to claim 1, wherein the selected character is selected from the group consisting of a letter, a number and a punctuation symbol.

13. The method according to claim 1, wherein the character is displayed on a touch screen display.

14. The method according to claim 8, wherein at least one of the keys of the keypad is a shift key, wherein said method further comprises the step of displaying a different set of characters in response to the shift key being pressed.

15. The method according to claim 1, further comprising the steps of:

assigning a function to one of the plurality of predetermined values that correspond to varying levels of pressure; and

in response to the applied pressure, performing the function that is assigned to the predetermined value that corresponds to the applied pressure.

16. A system for generating characters on a display, comprising:

a keypad containing at least one key for displaying at least one character and for receiving an applied pressure; and

a processor, wherein said processor is programmed to:

assign at least one character to one of a plurality of predetermined values that correspond to varying levels of pressure; and

in response to an applied pressure, select a character, wherein said character that is selected is assigned to said predetermined value that corresponds to the applied pressure.

17. The system according to claim 16, wherein said character is part of a set of characters.

18. The system according to claim 16, wherein said processor is further programmed to assign to at least one key the predetermined values that correspond to varying levels of pressure.

19. The system according to claim 16, further comprising a touch screen display having at least a first plate and a second plate, said first plate including a series of X-position impedances and said second plate including a series of Y-position impedances, wherein said first and second plates are separated by a predetermined distance.

20. The system according to claim 16, wherein said predetermined values are different stored values of contact impedance and said system further comprises processing circuitry, wherein said processing circuitry generates a contact impedance between said first and second plates in response to the applied pressure and wherein said processor is further programmed to:

measure the generated contact impedance; and

compare the generated contact impedance with the stored values of contact impedance to determine to which of said predetermined values the applied pressure corresponds.

21. The system according to claim 20, wherein the generated contact impedance is inversely proportional to the applied pressure such that the generated contact impedance increases as the applied pressure decreases and the generated contact impedance decreases as the applied pressure increases.

22. The system according to claim 20, wherein said processing circuitry further generates a pressure voltage in response to the applied pressure.

23. The system according to claim 20, wherein said keypad is integrated into said touch screen display, wherein said processor, in combination with said processing circuitry, is further programmed to measure an X-position and a Y-position of said touch screen display to determine which of said keys receives the applied pressure.

24. The system according to claim 23, wherein said processor, in combination with said processing circuitry, is further programmed to measure said X-position and said Y-position by determining a value of at least one of said X-position impedances and at least one of said Y-position impedances.

25. The system according to claim 24, wherein said processing circuitry generates an X-position voltage and a Y-position voltage, wherein said processor is programmed to determine the value of said X-position and Y-position impedances based on said X-position and Y-position voltages.

26. The system according to claim 16, wherein said selected character is selected from the group consisting of a letter, a number and a punctuation symbol.

27. The system according to claim 17, wherein at least one of said keys is a shift key and wherein said processor is further programmed to display a different set of characters for selection in response to said shift key being pressed.

28. The system according to claim 16, wherein said processor is further programmed to:

assign a function to one of the plurality of predetermined values that correspond to varying levels of pressure; and

in response to the applied pressure, perform the function that is assigned to the predetermined value that corresponds to the applied pressure.

29. A method of performing a function, comprising the steps of:

assigning at least one function to a plurality of predetermined values that correspond to varying levels of pressure;

receiving the applied pressure; and

in response to the applied pressure, performing the function, wherein the function that is performed is assigned to the predetermined value that corresponds to the applied pressure.